Written by Michael Shank Wednesday, 21 April 2010 15:05

The International Energy Agency (IEA) estimates that by 2030, new electronic gadgets will triple their energy consumption to 1,700 terawatt hours, the equivalent of the home electricity consumption of the US and Japan combined. According to the IEA, the international community will have to build over 15,000 wind turbines (or 200 nuclear power plants) to power all the TVs, iPods, PCs and other home electronics expected to be plugged in by 2030. The electric bill to power all household electronics will top \$200 billion a year, compared with last year's bill of \$80 billion. Most of this increase in consumer electronics will occur in developing countries, where economic growth is outpacing developed nations and ownership rates of gadgets are lowest.

"This proliferation of electronic devices," said Rep Honda, "if not made more energy efficient, will undermine efforts to increase energy security and reduce the emission of greenhouse gases responsible for global warming. The answer to this problem will not be found in stemming the tide of electronic gadget envy, no matter how functional or entertaining the device. The answer is found in better devices that are built more efficiently and run on less energy. Importantly, this legislation helps us green the electronics industry by providing the private sector with reliable standards and incentives and by educating and empowering consumers to make smarter and more efficient choices – all of which help cool the planet."

Rep Honda's legislation requires the Department of Energy (DOE) and the Environmental Protection Agency (EPA) to report to Congress within a year on several key areas to ensure we achieve the clarity needed for industry to thrive. First, the DOE and EPA must assess the potential for energy efficient electronics to receive an Energy Star designation, a program that primarily applies to household appliances, and the potential savings accrued (e.g. cost, energy) through a specific program focused on smart electronics**. Second, they must assess the global growth of electronics usage and utilization and the associated energy consumption. Lastly, the bill calls for the DOE and EPA to standardize a process for defining, categorizing, and ranking technologies as 'smart'.

Sehat Sutardja, CEO of Marvell Semiconductors, Inc., a leading industry proponent of the bill and a founder of Silicon Valley's Smart Electronics Initiative, commented, "In the next decade, the world will consume billions of new electronic products, from Smartphones, to tablet computers to televisions. The Smart Electronics Act is landmark legislation that will ensure that those new products are more energy efficient and earth-friendly- reducing our resource demands and carbon footprint for generations to come."

Jared Ficker with Smart-Electronics Initiative (www.smart-electronics.org) applauded Congressman Honda's bill introduction, "H.R. 5070 is a major step in the right direction. We have an insatiable appetite for consumer electronics and addressing the energy efficiency of these devices through innovation is key."

**"Smart Electronics" are defined in the bill as consumer electronics with at least one or more of the following characteristics: power-factor correction, stand-by power, communication with smart grid and in-home and networked energy monitoring equipment, on-demand and variable

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processing speed semiconductors, off-peak operation and charging, have low power switchable modes, and achieve greater efficiency with multiple functions on semiconductors.